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Account of the Re-mounting of his Observatory, with some Observations of the Satellite of Neptune. By William Lassell, Esq.

(*Letter to the Editor.*)

"Previous to my sending you a very small result of my astronomical labours this autumn, I may state that owing to the encroachment of buildings around my former residence of Starfield, in the vicinity of Liverpool, I have been driven two miles further into the country in the same direction, eastward of the town; and have found at least in this locality (which I consider for the present to be situated in latitude 53° 25′ 28″, and longitude west from Greenwich $11^{m}\ 38^{s}\cdot7$), a less smoky atmosphere, and a more rural expanse of prospect; whether a less cloudy or less disturbed atmosphere, some experience will be required to determine.

"During two or three months of the summer I was closely occupied in the removal of the two circular buildings and their domes, respectively 15 and 30 feet in diameter. The smaller dome was removed entire, on a four-wheel spring wagon. The larger was separated into four parts, as an orange is quartered, by running a saw down, so as to remove the boarding between two adjacent ribs 90° apart. Two of these quadrants, one partly placed within the other, were loaded, likewise on the same description of carriage, in a vertical position, nearly as when forming a part of the dome; and thus the whole in three journeys were safely brought to their new situation.

"Before the separation of the dome into quarters, iron plates, secured by screw-bolts, were attached across the intended sections of the base ring and of the semicircular arches which contain the grooves in which the shutters slide; and thus, when re-erected here, the replacement of the plates and bolts insured the exact juxta-position of the several quadrants. This plan has been attended with complete success, and the small portion of the removed boarding having been replaced and covered with new canvass, and the whole repainted, I believe no visible trace of its removal now remains.

"I embraced the opportunity thus afforded of improving the mounting of the dome, in respect of facility of motion, by turning a slight groove in the middle of the rim or circumference of the wheels, and introducing above and below a light curved railway bar. This has sensibly reduced the friction; and I now, without any appliance of mechanical power, can walk round with the dome, as it were, in my hand; thus carrying round with me a weight of 2400 lbs. without any inconvenient exercise of force.

"The stone piers and woodwork of both buildings, including the floors, wall-plates, and framing of lateral pulleys, were all removed with very slight derangement, and replaced in the two new circular buildings erected of precisely the same dimensions,—the very bricks of the old buildings being all removed for the

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purpose. The durability of this construction of dome has been in some degree tested by this removal; for, though the smaller dome has now been erected about fifteen years, no sign of decay was discovered during its translation; even the covering of canvass requiring no repair, whilst its freedom from strain or warping during the process has been such that the quadrantal shutter slides as easily and fits as well as when in its original position.

"Since the remounting of my observatory I have found opportunity for but few observations hitherto, but having been fortunate enough to obtain a remarkably good set of measures of the satellite of *Neptune* in position and distance, I request permission to put them on record by thus communicating them to the Society.

1854, August 29th, Tuesday.

	Measures of Position, with powers 366 and 614.		Measures of Distance; power 614.
	° ′		
	202 56		0·842 revolutions.
	203 4		790
	202 1		832
	201 56		829
	201 46		864
	202 32		866
	200 0		842
	201 40		0·837
Mean	201 59	Mean	0·838
Zero	253 45	Zero	−0·016
	51 46	Hence	0·822 = 17″·86
	38 14 = angle of position at 12h 20m Gr. M.T. Mean epoch of measures.		= distance at 13h 5m Gr. M.T. Mean epoch of measures.

"*Bradstones, West Derby, near Liverpool,*
9th November, 1854."

NEW PLANET.

Letter from M. Chacornac to Mr. Hind, dated Imperial Observatory of Paris, October 30th, 1854.

"I have the honour to inform you that in the night of the 28th–29th of October, at 2h 10m A.M., I met with a new planet; the positions of which are as follows:—

	Paris M.T.	R.A.	Decl.	
	h m s	h m s	° ′ ″	
Oct. 28	14 17 24·3	2 33 55·16	+16 58 43·7	Equatoreal.
29	12 1 14·5	2 33 8·97	+16 55 56·9	Meridian.

"This planet is the 33d; M. Goldschmidt will have announced to you to-day his discovery of the 32d."

This planet has been named *Polyhymnia.*—Ed.

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